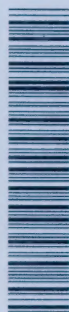


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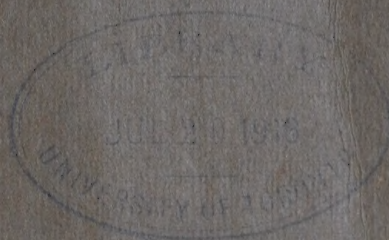
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Wood Fuel to  
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Eastern Canada

By CLYDE LEAVITT



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Commission of Conservation  
Canada







Canada Conservation Commission of  
"Committee on Forests"

(COMMISSION OF CONSERVATION  
CANADA)

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Wood Fuel  
TO  
Relieve the Coal Shortage  
IN  
Eastern Canada

BY  
CLYDE LEAVITT  
*Chief Forester*  
*Commission of Conservation*

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OTTAWA—1918

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*Constituted under "The Conservation Act," 8-9 Edward VII, Chap. 27, 1909, and amending Acts, 9-10 Edward VII, Chap. 42, 1910, and 3-4 George V, Chap. 12, 1913.*

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# Wood Fuel to Relieve the Coal Shortage in Eastern Canada

BY

CLYDE LEAVITT

*Chief Forester, Commission of Conservation.*

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## SUMMARY

**E**ASTERN CANADA is mainly dependent upon United States supplies for coal.

War conditions have resulted in an acute shortage of coal production and distribution in the United States, which, in turn, has caused a series of fuel crises in eastern Canada.

The demands for coal for local industrial and domestic uses in the United States are so heavy that exports to Canada and other countries must necessarily be carefully checked and regulated.

There is, to say the least, serious doubt as to whether the coal situation in eastern Canada can be improved materially during the continuance of the war, due primarily to the labour and transportation shortages, and to the enormously increased demand for coal for war purposes.

As long as such doubt exists, prudence demands that all reasonable precautions be taken to mitigate the disastrous results that might follow from an acute shortage of coal supplies.

The most urgent considerations of patriotism demand that the local consumption of coal be reduced as much as possible, to facilitate the preparation of troops, munitions and food supplies and their movement overseas, from both United States and Canadian ports.

A vigorous campaign for the conservation of coal supplies is being waged in the United States. Canada can surely do no less.

The consumption of coal can be considerably reduced through the wider use of wood fuel, of which Canada has enormous supplies.

On the other hand, the production of wood fuel has been seriously curtailed, due largely to the serious labour shortage.

The production of large quantities of hardwood fuel is essential to meet the situation.

To stimulate such production, and to increase the demand for wood fuel to the necessary degree will require a vigorous campaign of education, coupled with specific and well-organized effort on the part of provincial, city and municipal governments.

This is a question of preparedness, and results may be expected to be commensurate only with the effort exerted.

## SCARCITY OF WOOD FUEL

There has been almost, or quite, as great a famine of wood as of coal in many of the towns and cities of eastern Canada. This condition is anomalous, to say the least, in a country naturally so rich in timber resources.

Under normal conditions, the demand for wood fuel is relatively small, due to the greatly increased use of coal for nearly all fuel purposes. The severe coal shortage has, however, resulted in greatly increasing the demand for wood fuel. That the supplies of wood in fuel form have at many points been grossly inadequate to meet the increased demand may be at least partially accounted for by the following considerations:—

(1) The universal labour shortage, with consequent high cost of such labour as may be available. This renders it both difficult and expensive to convert standing timber into fuel form. The labour shortage has been due, primarily, to the heavy enlistments, including large numbers of axemen and other woods workers, for forestry battalions and other branches of overseas service.

(2) The uncertainty as to how long the emergency demand for large quantities of wood fuel will continue. There is a more or less natural tendency on the part of many people to be optimistic, and to assume that an existing emergency will not be repeated. Dealers, in many cases, feel that government control of the railways in the United States will solve the problem of coal distribution, to such an extent that a coal famine next winter is extremely unlikely, to say the least. They argue, that if such should prove to be the case, the emergency demand for fuel will disappear, prices will drop, and dealers having large reserve supplies might face heavy losses. Accordingly, while dealers, for the most part, do the best they can to secure supplies to meet current demands, they are, in many cases, naturally disinclined to make the large investments necessary to provide supplies of wood fuel sufficient to meet the situation in case of an extreme and prolonged shortage of coal. This consideration is intensified by the fact that wood fuel supplies ought to be laid in from six months to a year ahead of time, to ensure proper seasoning. Properly seasoned wood has, of course, a fuel value materially higher than green wood.

Authorities anticipate that the fuel situation will continue to be more or less critical throughout the duration of the war, but this does not entirely remove the element of doubt as to how great will be the demand for wood fuel in particular localities. The point has



not, however, been adequately considered that the demand for wood fuel can be very materially stimulated by an educational campaign urging people, as a patriotic measure, as well as one of prudence and necessity, to substitute wood fuel for coal so far as reasonably practicable. This action is now being taken in a systematic and thorough manner in many of the states, under the Federal and State Fuel Administrations.

(3) Coal is more convenient than wood for most fuel purposes, in addition to being as cheap or cheaper, considering the relative fuel values. The demand for wood fuel is thus limited, under normal conditions. According to the United States Forest Service, two pounds of seasoned wood have a fuel value equal to one pound of coal. On this basis, a standard cord (4 x 4 x 8 feet, or 128 cubic feet) of hardwood, such as birch, beech and hard maple, equals one ton of anthracite coal. One and one-half cords of hemlock, soft maple or tamarack, or two cords of spruce, balsam, cedar, white pine or basswood are required to make the same equivalent.

(4) In localities where sawmills exist, a considerable percentage of the local demand for wood fuel is supplied by mill waste, consisting of slabs and edgings. Some of this material is of hardwood, such as beech, birch and maple, but more often it is comprised of coniferous species, such as spruce, balsam, pine, etc. The production of this class of material is at present considerably below normal, because of the prevailing depression in the lumber business, which has resulted in many mills working only part time or closing down altogether. This relative stagnation is due to war conditions, which have materially decreased the amount of building. It has also been intensified by the prevailing shortage of railway equipment, which has made it difficult to secure transportation. The car shortage has also had the effect of preventing, to a considerable extent, the shipment of mill waste to points where a demand might exist for it for fuel purposes. The amount of mill waste available for fuel has been further limited by the utilization, in some cases, of spruce and balsam slabs and edgings in the manufacture of pulp.

(5) Many dealers who formerly dealt heavily in wood now give this feature of their business comparatively little attention, preferring to concentrate upon the handling of coal. In the case of the latter, the financial turnover is quicker than in the wood business, and the demand is steadier and more dependable. Current business is, of course, handled, but there is less inclination to tie up investments for the long periods of time that would be required to allow the proper seasoning of block wood.



(6) In ordinary times, very considerable quantities of block wood are cut by farmers from their woodlots during the winter. Under present conditions, however, farmers in general are faced with a severe shortage of labour, which renders them, during the winter months, less able than formerly to cut firewood for sale. In addition, there is less necessity for such action on their part, since war conditions have resulted in bringing to them better returns for their crops than has previously been the case under normal conditions.

(7) Very large quantities of cordwood are consumed annually by chemical companies, for destructive distillation and the manufacture of charcoal. This demand materially reduces the supplies that would otherwise be available for domestic use, and is at the same time a factor in holding prices to a relatively high level.

(8) The increasing settlement of the country, together with the cutting which has previously taken place, has naturally reduced the amount of wood conveniently accessible to transportation by team or rail. This is notably the case in the vicinity of the larger towns and cities, where the demand for fuel is necessarily greatest. This means that, taking the situation as a whole, it is constantly necessary to go further away for an increased proportion of the supplies of hardwood fuel needed for consumption in the larger towns and cities. This situation renders it more essential than formerly that if a large production of wood fuel is desired, there should be special attention on the part of some particular organization to see that the action desired is taken on a commensurate scale.

### THE FUEL SITUATION

Eastern Canada can not afford to overlook the fact that a very considerable proportion of her coal supplies must come from mines which are situated in the United States, and over a considerable mileage of United States railways. The coal shortage of the United States has been officially estimated to be not less than 50,000,000 tons. Federal and state fuel administrations have been appointed to assist in solving the very serious problems which have resulted from this great shortage in the production of coal. The demands for coal for industrial purposes directly due to the war are very heavy, and may be expected to increase greatly. Demands for export are also heavy, as well as the demands for local domestic use. Authorities consider that the coal shortage will continue for the duration of the war, and that this situation will affect Canada as seriously in the future as it has in the past, if not more so. The amount of coal



allowed to be furnished to specific localities or specific industries, will presumably be limited, through the various fuel controllers in both the United States and Canada. As a matter of fact, the fuel problem is world wide today. In England, France, and Italy, the coal shortage is so great that the rationing system has been adopted. It is reported that in the latter country the coal supply has been so short that during last summer more than 1,000 square miles of forests were cut down for use as fuel and for making charcoal. In Sweden, also, the coal shortage has become so serious that the Government forestry organization has been compelled to cut great quantities of timber for use as fuel.

In view of the extreme seriousness of the coal shortage in most of the countries of the world, and of the opinion of those who ought to know, that the condition will remain more or less critical throughout the war, the obvious thing for Canada to do is to consider how far her great forest resources may be utilized to meet the conditions which may possibly face at least the eastern portion of the country during next winter.

Canada may well take a lesson from the situation in the New England States. The Federal Fuel Administrator for New England, Mr. J. J. Storrow, in a call for a conference on the subject, said:—

"A serious shortage of coal threatens New England this winter. The situation does not warrant neglecting any possible measure of preparedness. For this reason it seems advisable to make a New England campaign for the production of wood on a large scale. Good hardwood properly prepared and dried can be used extensively for domestic purposes as an emergency measure. Wood cut in November can be burned the latter part of the winter, when the coal situation may be more acute. The campaign should also look ahead toward a large supply of wood for next winter when the coal situation may be more serious than this year."

The full attendance at the conference bespoke the interest of everyone in the solution of the fuel problem, and the conclusions reached were summarized as follows:—

1. People throughout New England should be urged to use wood wherever they can do so in order to save coal.
2. It is earnestly recommended that the fuel administrators and the agricultural and other officers throughout the New England states shall urge upon all woodland owners to cut cordwood promptly and extensively.
3. As far as possible, portable sawing machinery should be used in order to save the expense of additional handling. In some instances the wood can probably be cut into one foot lengths advantageously.



The machinery uses a different class of labourers, reducing the number of skilled labourers required.

4. In order to secure the best results, local organization is necessary. Leadership and sometimes capital are required, which we believe should come from the local banks and business men.

5. It is recommended that the fuel administrator in each state shall appoint a representative committee from the several counties and wood-using industries, including the State Forester in each state, these committees to take charge of the wood situation under the fuel administrator. Insofar as their judgment approves, local committees in the several towns should be organized in order that the local committees shall protect themselves against extortionate prices.

The Fuel Administrators for each state should appoint committees in each town to canvass all timber-land owners and urge upon them the necessity for increasing the cutting of wood, not only to be used this winter, but for a reserve supply of seasoned wood for next winter. Even where \$2.00 or even \$3.00 per cord is now paid for cutting the wood, the owner is receiving more for his stumpage under present prices than he did a few years ago when cutting cost but \$1.00 per cord.

The State Forester of Connecticut has been working on the wood problem in that state, as member of a committee under the State Fuel Administrator. He expresses the opinion that the campaign for the greater production of wood fuel is increasing the output of cordwood in Connecticut, though the results will show more plainly next winter. Although the consumption of wood will no doubt be considerably increased in the cities, the greatest effect is anticipated in the rural communities, where wood may be the only fuel available next winter, and where it is hoped to establish a sufficient reserve supply. Town woodyards are regarded as feasible, especially in connection with the community chopping bee idea, which has started in Massachusetts.

Action along these lines ought, in general, to be even more feasible in eastern Canada than in the New England States, for the reason, that, as a general rule, in eastern Canada coal costs more and wood costs less than is the case in New England.

The Massachusetts Fuel Administrator has issued a circular entitled "New England Cut-A-Cord Campaign. Stock up the Wood Shed. Coal May be Harder to Get Next Year than This." This circular calls attention to the fact that coal is in great demand all through New England, but that, in spite of the best efforts of the Fuel Administrator, the supply has fallen far behind the requirements,



and the situation is serious. The Fuel Administrator says that the outlook for any improvement in future coal deliveries is unfavourable, and it has become the duty of the Administrator to advise the public of these facts, and to urge that personal and community prudence and national patriotism require that New England should begin at once to utilize as fully as may be the native cordwood supplies. The opinion is expressed that an organized effort should be made without any delay to provide a store of wood sufficient for immediate and future needs. The reports from several states indicate positively that the supply of wood now on hand is everywhere short even of normal requirements, and that there nowhere appears to be any danger of glutting the market through any cutting activity that may be inaugurated. In view of the likelihood that there will be an even greater stringency in the coal situation later in the season, and with the possibility that these conditions may not be materially improved another year, the present or future market for good cordwood bears a most promising appearance.

It was further recommended by the conference referred to above that an appeal should be made to local Committees of Public Safety in all wood-producing localities, and to county agents as well, to take an inventory of all available supplies of cordwood stumpage that are situated within a reasonable distance of a market, and to endeavor forcefully to arrange for its cutting without delay. The circular concludes by earnestly requesting the Granges and the Farmers' Clubs to immediately take an active part in co-operating with the local Committees on Public Safety in this important matter.

Publicity material, issued by the federal or state agencies, co-operating to meet this critical situation, contain references to the following:—

"The Boston and Maine railroad and New York Central and Hudson River railroad have decided to stop the burning of old ties. The latter company has been burning 1,750,000 ties each year. It is estimated that these are equivalent to 30,000 tons of coal."

"The annual conference of county agents and Farm Bureau representatives, held at Durham, N.H., December 5 and 6, adopted a plan which calls for the appointment of men on the executive committees of the Farm Bureau who shall be responsible for the wood campaign. In many cases, the local Fuel Administrators will be appointed, in order to tie up more closely the various agencies concerned."

"The Fuel Administrator for Claremont, N.H., reports that the Chamber of Commerce has appropriated \$1,000 for buying stumpage



at a price not to exceed \$1.50 per cord; and for cutting and hauling. The wood is to be sold at cost price."

"Mr. Frank. L. Hildebrand, representative of the Federal Trade Commission in New England, reports that, because of the shortage of wood in northern New Hampshire and Vermont, more coal than usual has been consumed. Many localities have had their full quota of coal, and it is doubtful whether they can get more, since it would be unfair to other sections."

"On October 13th, A. W. McAllister, the Fuel Administrator of North Carolina, issued a timely circular urging cities and towns as a war measure to furnish wood to consumers at cost. His plan is as follows: Let each municipality (1) buy wood by wholesale in large quantities for delivery by waggon or railroad at a municipal woodyard, which should be located on a railroad siding, if wood is to be shipped in by rail; (2) equip the yard with power-saws, etc., utilizing such available equipment as the municipality already has; (3) use convict labour, workhouse labour, or street force to do the work; (4) use the municipal teams for delivery of wood to consumer, cut ready for consumption at actual cost; (5) put somebody in charge of the work who is capable of doing it successfully; (6) do not use coal cars for shipping in your supply of wood; (7) if wood can not be bought in sufficient quantities to supply the municipal yard, contract with land-owners for the privilege of cutting the wood under forest conservation restrictions and direct the cutting of the wood with your own labour; (8) encourage consumers to substitute sheet iron wood stoves for their coal burners."

"War fuel companies have been organized in practically every county of Tennessee. Each company has a manager, who superintends wood cutting. Six per cent on the money invested is all the profit charged by these concerns, which are directed by patriotic citizens. Wood is being purchased in Tennessee for \$4.00 a cord delivered. It will retail at \$5.50 a cord for fire-wood and \$6.50 a cord for stove wood."

"Local Administrator Shurtleff, of Lancaster, N.H., reported that 20 business men of his town have contracted for 500 runs of 13" wood at \$3.00 a run, the same to be sold by them at cost."

"An effort will be made to have lumber companies keep their crews chopping cordwood after completing the lumber jobs and before the spring drive."

"A preliminary survey of the local fuel situation at Missoula, Montana, has been made by the Forest Service. It was found that there is a considerable shortage in the supply of millwood, which ordinarily furnishes an important part of the total fuel consumption. Since there is little likelihood that this shortage can be met by an increased supply of coal, efforts were made to locate adequate supplies of cordwood within a reasonable distance of town. Such a supply was found in the form of tops and defective trees on logged-off lands belonging to the Anaconda Copper Mining Company, which has agreed to permit cutting of this wood free of charge."



The United States Forest Service has taken a very active interest in the wood fuel campaign, and has assigned an expert forester, who devotes his whole time to co-operating with other agencies along these lines.

To show how urgent is the need for coal conservation, the following is quoted from bulletins of the United States Fuel Administration:—

"This country is short on transportation facilities, therefore it is short on coal.

"One begins to comprehend the nature of the problem when confronted with this fact—the transportation of the 30,000,000 car-loads of coal mined last year constituted more than half of all the freight carried by the railroads.

"But when to this eloquent factor is added the explanation that the railroads themselves in their locomotives used last year, between 125,000,000 and 135,000,000 tons of coal, and that they will this year require for their use 175,000,000 tons, it is seen that the hauling of coal is a burdensome proposition.

"The greatest handicap to increasing coal-production during the past year has been the lack of railroad coal-cars, aggravated by the lack of engines and other transportation facilities.

"It would be fortunate, indeed, if the railroads could use their entire rolling stock and power plants, their terminals and their labour force, for the transportation of munitions, of soldiers, and of food so vital to the prosecution of the war.

"But, unfortunately, the transportation of coal alone uses up 30 per cent of the entire railroad equipment of the United States, cars, locomotives, sidings, and terminals. Coal shipments clutter up and overtax the roads.

"Coal is, therefore, not only a problem, but it creates problems. It may all be summed up in transportation. The waster with the shovel, therefore, is a man who stands in a very serious position. With every shovelful of coal he wastes he lowers the efficiency of the man on the firing-line, he lowers the temperature of the cantonments, he reduces the speed of the submarine destroyers, he diminishes the force of the projectile, he slackens the speed of the munition plant—in brief, he compels the unfortunate use of cars to carry him another shovelful of coal.

"When it is popularly said that munitions will win the war, or that finances will win the war, these are merely other ways of saying that the production of coal, and its application to the war in armaments, war-ships, merchant ships, shells, rifles, tanks, submarines, aeroplanes, or locomotives, will win the war. The war has created a demand upon the United States for one hundred million more tons of coal this year than is normally produced. Because of the car-



shortage and the congested condition of the railroads, it will be impossible to increase the supply more than fifty million tons. The remaining gap of fifty million tons will have to be filled in by conservation in the homes and industrial plants of America.

"Arbitrary limitation is a last resort, and to be avoided, if possible. In many cases industrial concerns have already begun a voluntary curtailment of their use of coal. The way to prevent those losses incident upon limitation of industry is for every consumer of coal to cut off waste and unnecessary consumption with an iron hand and to start on this intensive course of conservation without a moment's delay."

The following, we are told, are the lines of investigation and effort already undertaken by the Conservation Division of the United States Fuel Administration:—

"(1) The consolidation of plants engaged in certain industries, such as ice-making.

"(2) The reduction of electricity used for illuminated signs and needless outdoor display.

"(3) The urging of Congress to pass a law for daylight saving, which, it is estimated, will save at least 1,000,000 tons of coal per year.

"(4) The encouragement of the fullest use of all water-power now available, and the development of all water-power which can be made available in time to be of use in the present emergency.

"(5) A campaign to increase cutting of wood for fuel.

"(6) The encouragement of coal conservation in the homes of the country."

### HOW WOOD CAN HELP

Experience has shown that it is altogether feasible to materially relieve the coal shortage by a more extensive use of wood fuel in at least the following directions:—

1. Farmers and rural communities generally, within easy reach of wood supplies, should make as general use of this fuel as possible, to relieve the demands for coal and freight cars alike. To a certain extent this would involve reversion to the old-fashioned wood-stove which has become more or less obsolete, even in such communities. This, will, of course, be feasible to a lesser extent in the larger towns and cities.

2. The general substitution of wood for coal in furnaces and stoves during early autumn and late spring, as well as during mild



weather in the winter, when only a moderate fire may be required. The United States Forest Service advises that, where wood is to be burned in a stove or furnace intended for coal, it will be found desirable to cover the grate partly with sheet iron or fire brick, to reduce the draught. If this is not done, the wood is wasted, by being consumed too fast, and, while it makes a very hot fire in a furnace, it may damage the fire box.

3. The heating by wood, of churches, lodge-rooms, halls, etc., where warmth for only a limited period of time may be necessary.

4. In many cases, it will be quite feasible to eke out limited stores of coal by burning wood in the day-time, reserving coal for holding the fire over night.

5. Furnaces may be run low, keeping the house in general only warm enough to prevent water pipes from freezing, supplementing this by the use of wood fuel in stoves or grates to keep the living and dining rooms comfortable.

6. Wood can be used much more generally than at present as a substitute for coal in cooking.

7. As Senator Edwards has pointed out, a great saving of fuel can be accomplished by making windows and doors tight against the entrance of cold air from the outside, through the use of weather stripping, etc.; also, by the insulation of furnaces and pipes with coverings of asbestos and other suitable material. Further, wherever possible, the burning of mill waste in incinerators should be avoided by saw-mill owners, and this material reserved for heating during the ensuing winter.

## WHAT SHOULD BE DONE IN EASTERN CANADA

It has already become necessary for Dominion, provincial, city and municipal governmental agencies to take a hand in solving the coal problem. Voluntary economy in the use of coal may be expected to assist materially in reducing consumption. Every householder may play an important part in relieving the situation in this way. Furthermore, in every city many small families are living in large houses, of which only a portion of the rooms are in actual or necessary use. In such cases, a material saving in coal consumption may be accomplished by closing up unused or unneeded portions of the house during the winter months.

All these measures are, however, inadequate to meet the conditions as they are very likely to exist next winter. It therefore



becomes exceedingly important to consider how far the generous forest resources of eastern Canada may aid in relieving the shortage of coal, which may in all reason be expected to continue throughout the duration of the war.

The Dominion Fuel Controller has repeatedly called attention to the urgent need for increasing the production of wood. Provincial Governments have expressed the keenest desire to co-operate in every possible way, and are definitely at work on the problem. Municipal governments have, in isolated cases, taken steps to accumulate a reserve of wood fuel to supplement the dealers' stocks. Winnipeg purchased a large reserve of wood and the Mayor of that city reports that this action proved an important factor in averting a local fuel crisis. In Ottawa, similar action has for some time been under consideration, and authority has now been secured for the purchase of a supply of wood fuel by the city. In a limited number of other towns, mostly in Ontario, action of a similar character has been taken or contemplated. In general, however, the situation, so far as wood is concerned, has not received anything like the attention which its importance justifies. As in practically all other lines of war-effort, special organization is essential to results.

Surely, if, in the United States, special organization all along the line is essential, to stimulate the production and consumption of wood fuel, and thereby to reduce the demand for coal, similar action is even more necessary in eastern Canada, or may be expected to become so before next winter. A campaign of publicity, through the press and otherwise, should be instituted, practically parallel to the extensive campaign for food conservation. It is the order of the day to relieve the strain upon war-essentials through the wider use of available substitutes. Action along these lines should be taken, whether it later becomes necessary or not for the authorities to enforce conservation, in at least some localities, by prohibiting the use of coal between April 15 and December 15. This is a possibility which has been discussed to some extent, and indicates at the very least how seriously the situation is regarded.

Each municipal government should investigate carefully the local situation and determine to what extent it is necessary to supplement the efforts of the regular dealers, in order to maintain a suitable reserve of wood fuel for emergency use. All accessible sources of supply should be considered, as well as what measures are feasible to make the necessary amount of wood available for use. No doubt, in many cases, the local dealers may be able to provide

adequately for the situation by laying in considerably larger supplies of wood fuel than usual. However, in many other cases this action should not be relied upon, due to the heavy investments involved, and supplementary action by other private interests or by local governmental agencies becomes essential. The form of such action is a matter to be settled according to the local conditions in each case. Under some circumstances, the city or municipality should purchase a reserve supply, outright. In other cases, some form of guarantee against loss by local dealers may be found practicable, such as would justify the purchase of a stipulated quantity of wood at a fixed price.

Farmers and rural communities generally should revert, so far as possible, to the use of wood fuel. Farmers should also be urged to cut additional supplies of wood for sale for town and city use. This, in the aggregate, would help tremendously in relieving the coal shortage.

The Provincial Governments, on the other hand, may render a great public service by entering vigorously into this campaign. Some one familiar with conditions, preferably working under the direction of the Provincial Forester, should take these matters up actively with municipal governments. A campaign of education may be expected to stimulate both the production and consumption of wood fuel. In some cases, no doubt, timber on Crown lands will be found to be commercially accessible to a specific market; in such cases the provincial authorities may reasonably be expected to assist materially in the completion of necessary arrangements for cutting. The saving in stumpage cost on Crown lands, over the privately-owned timber nearer to the towns and cities, should at least go far toward overcoming the higher cost of rail transportation in the case of the former.\*

The aim should by all means be to secure an actual increase in the *amount* of wood cut and to supplement the supplies that would in any event be handled by the regular dealers. For a municipal government to simply compete with the dealers for the limited normal

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\* The Ontario Department of Lands, Forests and Mines has offered cities and municipalities in the Province the privilege of securing, free of charge, hardwood suitable for fuel, wherever available on Crown lands; cutting to be under regulations prescribed by the Department. The services of Crown Timber Agents will be made available to assist in the location of bodies of hardwood timber on Crown lands suitable for this purpose.

The Department of Lands and Forests in Quebec, through its Provincial Forester, is circularizing city and municipal governments to ascertain the needs of the local situation in each case, as the basis for a general plan for increasing the production and consumption of wood fuel in the Province.



supplies of wood will not improve the situation in the least, and might seriously injure it, by driving the latter partially or wholly from the field. It is perfectly obvious that an increased consumption of wood can follow only from the tapping of new sources of supply, or from a material stimulation of production from normal sources. Municipal governments should, as already indicated, consider carefully the laying in of a reserve supply of wood fuel, to be held for emergency use, when coal and wood supplies of the regular dealers have become seriously depleted. An investment of this character is simply a reasonable form of insurance against possible disaster.

Since the heating value of wood fuel is in direct proportion to its dry weight, hardwoods, such as beech, birch and hard maple, are to be preferred.

The really essential thing is that there shall be definite recognition that an emergency exists, which can, in part, be met through the wider use of wood fuel; also that there should be provision for centralized organizations in the several provinces to determine what specific action is necessary and feasible, and forseeing that such action is taken. Steps now under way in this direction will no doubt meet with the full support of the public.







